

## MOV Varistors &amp; CPTCs Product Portfolios

| MOV Varistor |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |  |
|--------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|--|
| V.V.         | 18 | 22 | 27 | 33 | 39 | 47 | 56 | 68 | 82 | 100 | 120 | 150 | 180 | 200 | 220 | 240 | 270 | 300 | 330 | 360 | 390 | 430 | 470 | 510 | 560 | 620 | 680 | 750 | 780 | 820 | 910 | 950 | 1000 | 1100 | 1200 |  |
| Vrms         | 11 | 14 | 17 | 20 | 25 | 30 | 35 | 40 | 50 | 60  | 75  | 95  | 120 | 130 | 140 | 150 | 180 | 195 | 210 | 230 | 250 | 275 | 300 | 320 | 360 | 390 | 420 | 460 | 485 | 510 | 550 | 575 | 625  | 680  | 750  |  |
| 5D           | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ●  | ★   | ★   | ★   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |     |     |     |     |      |      |      |  |
| 7D           | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ●  | ★   | ★   | ★   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |     |     |     |     |      |      |      |  |
| 10D          | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ●  | ★   | ★   | ★   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |      | ●    | ●    |  |
| 14D          | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ●  | ★   | ★   | ★   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     | ●    | ●    |      |  |
| 18E          |    |    |    |    |    |    |    |    | ⊙  |     |     |     | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   | ⊙   |     | ⊙   | ⊙    |      |      |  |
| 20D          | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ★  | ●  | ★   | ★   | ★   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     | ●    | ●    |      |  |
| 25D          |    |    |    |    |    |    |    |    |    |     |     |     | ★   | ★   | ★   | ★   | ★   |     | ★   | ★   | ★   | ★   | ★   | ★   |     | ★   | ★   | ★   | ★   | ★   | ★   |     | ★    | ★    |      |  |
| 32D          |    |    |    |    |    |    |    |    |    |     |     |     |     | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★    | ★    |      |  |
| 34R          |    |    |    |    |    |    |    |    |    |     |     |     |     | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★    | ★    |      |  |
| 40D          |    |    |    |    |    |    |    |    |    |     |     |     |     | ★   | ★   | ★   | ★   |     | ★   | ★   | ★   | ★   | ★   | ★   |     | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★    | ★    |      |  |
| 53D          |    |    |    |    |    |    |    |    |    |     |     |     |     | ★   | ★   | ★   | ★   |     | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★   | ★    | ★    | ★    |  |

## Remarks :

1. V.V. : Varistor voltage.
2. "\*" Means available item, "⊙" means high energy MOV available and "●" means both standard & high energy MOV available.
3. Safety approvals: (a) UL 1449 recognized (File# E172311), UL 1414 recognized (File# E182369), UL 497B recognized (File# E199593)  
(b) CSA 22.2#1 recognized (File# LR109496-1 & LR109496-4),  
(c) VDE/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435). For 5D~20D only.

## FSR\* (Thermo-Fuse Varistor)

FSR is a MOV Varistor attached with thermal fuse. FSR would be disconnected from power once MOV temperature exceeds certain level.

| V.V.  | 18 | 22 | 27 | 33 | 39 | 47 | 56 | 68 | 82 | 100 | 120 | 150 | 180 | 200 | 220 | 240 | 270 | 300 | 330 | 360 | 390 | 430 | 470 | 510 | 560 | 620 | 680 | 750 | 780 | 820 | 910 | 1000 | 1100 |
|-------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Vrms  | 11 | 14 | 17 | 20 | 25 | 30 | 35 | 40 | 50 | 60  | 75  | 95  | 120 | 130 | 140 | 150 | 180 | 195 | 210 | 230 | 250 | 275 | 300 | 320 | 360 | 390 | 420 | 460 | 485 | 510 | 550 | 625  | 680  |
| 18E   |    |    |    |    |    |    |    |    | *  |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| 20D/E | *  | *  | *  | *  | *  | *  | *  | *  | *  |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| 25D   |    |    |    |    |    |    |    |    |    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| 32D   |    |    |    |    |    |    |    |    |    |     |     |     |     | *   | *   | *   | *   |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |

## Remarks :

1. V.V. : Varistor voltage.
2. "\*" Means available item.
3. Safety approvals: UL 1449 recognized (File# E172311) & UL 1414 recognized (File# E182369)

## DG (CPTC Degausser)

| Product Type       | Resistance at 25°C (Ω) |   |   |   |           |   |   |   |    |    |    |    |    |    |    |     |           |  |
|--------------------|------------------------|---|---|---|-----------|---|---|---|----|----|----|----|----|----|----|-----|-----------|--|
|                    | 140 Volts              |   |   |   | 270 Volts |   |   |   |    |    |    |    |    |    |    |     | 290 Volts |  |
|                    | 1.5                    | 3 | 5 | 7 | 4.5       | 7 | 8 | 9 | 12 | 14 | 18 | 20 | 27 | 30 | 36 | 4.5 | 7         |  |
| Dual PTC           | *                      | * | * | * | *         | * | * | * | *  | *  | *  | *  | *  | *  | *  | *   | *         |  |
| Single PTC         | *                      | * | * | * | *         | * | * | * | *  | *  | *  | *  |    | *  |    | *   | *         |  |
| Single PTC Coating |                        |   | * | * |           |   | * | * |    | *  | *  | *  |    | *  |    |     |           |  |

## Remarks :

1. "\*" means item available.
2. Safety approvals: (a) UL 1434 recognized (File No. E131691)  
(b) CEBEC recognized (Certificate No. 13743, comply with IEC60065, refer to IEC 60738-1-3 1998 and IEC60730-1 1999)  
(c) VDE recognized (Certificate No. 40010432, DIN EN 60065:1999-10, EN 60065:1998-08)  
(d) CQC recognized (Certificate No. CQC04001010958, CQC04001010959)

## PTD (CPTC Thermistor Protector)

| Application        | Volts (V) | Resistance at 25°C (Ω)                             |
|--------------------|-----------|----------------------------------------------------|
| Ballast            | 265       | 55_70_100_120_150_180_250_260_300_380_500_800_2200 |
| Telephone Exchange | 220       | 4_9_15_18_20_25_33                                 |
|                    | 24/32     | 3.3_4.7_6.8_10 / 1.5_4.6_13_20_22_33               |
| Circuit Protection | 80        | 2.3_3.7_5.6_9.4_25_55                              |
|                    | 265       | 3.7_6_10_15_25_35_70_150_250_300_380_500_800_2200  |
|                    | 420 / 550 | 600_1000 / 1200_1500                               |
|                    | 600       | 1500_2000_2200_2700                                |

## Safety approvals :

1. CQC recognized (Certificate No. CQC04001010952~CQC04001010957)
2. UL 1434 recognized (File No. E131691)